IN THE CLAIMS

Please amend the claims as follows. Added text is underlined and deleted text is either struck through or shown in double enclosing brackets. Applicants aver that no new matter has been added.

1-7. (Canceled)

8. (Previously Presented) A method of testing at least one embedded device under test (DUT) comprising:

determining a test configuration parameter set comprising predefined DUT test sequence rules;

determining a first data set comprising input test vectors based on the test configuration parameter set;

processing the first data set in a DUT model to determine output test vectors wherein the output test vectors comprise DUT model generated responses to the input test vectors;

processing the first data set and the output test vectors, comprising:

parsing the output test vectors with the first data set in accordance with a predefined timing reference in which the predefined timing reference determines a point in time to sample an output test vector as a stabilised output test vector; and

matching each stabilised output test vector to form pairs of stabilised input and output test vectors to determine a second data set comprising pairs of stabilised input and output test vectors;

communicating the stabilised input test vectors to at least one DUT via a DUT independent interface so that the at least one DUT is stimulated by the stabilised input test vectors to produce DUT output vectors;

determining a third data set comprising the stabilised input vectors and corresponding DUT output vectors; and

comparing the third data set with the second data set to determine a comparison of actual behaviour to modelled behaviour of the at least one DUT;

wherein the predefined timing reference is derived from a logical connection port adapted to indicate a predefined timing reference for determining a point in time at which to sample an output vector as the corresponding output vector in an input/output vector pair.

9. (Previously Presented) The method of claim 8 wherein the DUT independent interface comprises an interprocess communication protocol utilising one of:

TCP/IP;

Active-X; and

a serial communications standard.

10. (Currently Amended) The method of claim 8 wherein the DUT model comprises at least one ~~or more~~ of the following abstraction techniques:

architectural level descriptions;

data type definitions;

state transition diagrams; and

extended Message Sequence Charts.

11. (Previously Presented) The method of claim 8 wherein the data set comprises test vector formatted files.

12. (Previously Presented) The method of claim 8 wherein the test configuration parameter set comprises a test parameter configuration file.

13-38. (Canceled)

39. (New) The method of claim 8 wherein the DUT comprises at least one of:

a smoke detector;

a fire detector;

a security device;

a medical device;

a biological tissue processing device; and

an industrial process device.

40. (New) A computer-readable medium storing thereon a computer program comprising a set of instructions operable to cause a processor to perform the following operations, the operations comprising:

determine a test configuration parameter set comprising predefined device under test (DUT) test sequence rules;

determine a first data set comprising input test vectors based on the test configuration parameter set;

process the first data set in a DUT model to determine output test vectors wherein the output test vectors comprise DUT model generated responses to the input test vectors;

process the first data set and the output test vectors, comprising:

parsing the output test vectors with the first data set in accordance with a predefined timing reference in which the predefined timing reference determines a point in time to sample an output test vector as a stabilised output test vector; and

matching each stabilised output test vector to form pairs of stabilised input and output test vectors to determine a second data set comprising pairs of stabilised input and output test vectors;

communicate the stabilised input test vectors to at least one DUT via a DUT independent interface so that the at least one DUT is stimulated by the stabilised input test vectors to produce DUT output vectors;

determine a third data set comprising the stabilised input vectors and corresponding DUT output vectors; and

compare the third data set with the second data set to determine a comparison of actual behaviour to modelled behaviour of the at least one DUT;

wherein the predefined timing reference is derived from a logical connection port adapted to indicate a predefined timing reference to determine a point in time at which to sample an output vector as the corresponding output vector in an input/output vector pair.